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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/821,387	03/28/2001	Steve Wai Leung Yeung	25821P031	3593

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EXAMINER	
BELL, PAUL A	

ART UNIT	PAPER NUMBER
2675	18

DATE MAILED: 02/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/821,387	YEUNG, STEVE WAI LEUNG	
	Examiner	Art Unit	
	PAUL A BELL	2675	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chen (5,648,793).

With regard to claim 1 Chen teaches a method for driving an LCD (column 1, lines 5-8), comprising providing an LCD with a number of columns (figure 1(A) D1, D2, D3 and D4), providing an LCD with a number of rows (figure 1(A) G1,G2,G3 and G4), providing a number of pixels to said LCD (figure 1(A) P11, P12, P13 and P14), and driving the LCD by an applied field parameter selected from the group; multi-row, multi-column, and multi-pixel inversion (figures 4(A), 4(B), 4(C)), **said inversion is applied for two or more consecutive frames** (SEE abstract "the **picture** elements in **adjacent** rows and/or **adjacent** columns are **applied with** signals of **opposite polarities**. **These polarities** are **reversed** for **every other field** of a **picture frame**" Note this is illustrated for rows in figure 4(B) which illustrate the two interlaced fields, which make up a "picture frame" being field 1 and field 2. This is viewed as teaching that field 1 in frame **1** has a reversed polarity in relation to field 1 in frame **2**. Also note how figure 7 illustrates the data signal D1 inverted in going from frame 1 to frame 2.) to provide a reduced total fringe field effect to maintain contrast and a minimized

flickering on a display (abstract "reduces flicker and cross-talk", column 2, line 59 - column 3, line 7).

With regard to claim 2 Chen teaches the method as defined in Claim 1, wherein the multi-row, multi-column and multi-pixel-inversions are adjustable (figures 4a, 4b and 4c).

With regard to claim 3 Chen teaches the method as defined in Claim 1, wherein there is a number of columns (m) which is any integer from two to the number of scan lines and wherein there is a number of rows (n) which is any integer from two to the number of column lines (inherent feature because a matrix is two or more).

With regard to claim 4 Chen teaches the method as defined in Claim 3, wherein there is an (n)-row inversion applied to a passively and an actively driven LCD, and wherein (n) is any integer from two to the number of scan lines (figures 1a show active case and since the lcd functions regardless of the driving method so passive is inherent).

With regard to claim 5 Chen teaches the method as defined in Claim 3, wherein there is an (m)-column inversion applied to an actively driven LCD, (m) being any integer from two to the number of column lines (figure 5).

With regard to claim 6 Chen teaches the method as defined in Claim 3, wherein there is an n x m-pixel inversion in an actively driven LCD, where (n) is an integer from two to the number of scan lines and (m) is an integer from two to the number of column lines (figure 5).

With regard to claim 7 Chen teaches the method as defined in Claim 1, wherein said method is applied to one of an actively driven miniature TFT LCD and a reflective liquid crystal on silicon LCD (figure 1a).

With regard to claim 8 Chen teaches the method as defined in Claim 1, wherein there is simultaneous inversion of one of a plurality of columns, rows or pixels of an LCD (figure 4a, 4b, and 4c).

With regard to claim 9 Chen teaches the method as defined in Claim 8, wherein said plurality comprises two (figure 5).

Response to Arguments

Applicant's arguments filed 12/8/2003 have been fully considered but they are not persuasive. The applicant argues with regard to claim 1 that Chen does not teach "said inversion is applied for two or more consecutive pixel frames". The examiner disagrees and references the more detailed rejection of the amended claim above.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019. Customer Service Office whose telephone number is (703) 306-0377 can help with any inquiry of a general nature or relating to the status of this application.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Or Faxed to: (703) 872-9306
Or Hand-delivered to: Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist)

Paul Bell
Art unit 2675
February 17, 2004

CHANH NGUYEN
PRIMARY EXAMINER